

## Kim DelNigro

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**From:** Don Johnson  
**Sent:** Wednesday, September 28, 2005 4:17 PM  
**To:** Greg Niemyski; Planning Board  
**Cc:** Planning Department  
**Subject:** Brabrook/Ellsworth Village Complaint

During the Planning Board's Oversight meeting with the Board of Selectmen Monday evening, Chairman Ashton mentioned a complaint the Selectmen had received regarding the Ellsworth Village project and Brabrook Road. Attached is a copy of that complaint.

Regards,  
Don

Carol Holley  
39 Pope Road  
Acton, MA 01720

September 24, 2005

Board of Selectmen  
Town Hall  
Acton, MA 01720

Dear Selectmen/Selectwoman:

This letter expresses concerns regarding the legal "teeth" inherent in conditions to permits granted by boards that govern certain activities in the community. Over the past few years, I have been witness to more than one instance of a developer unilaterally opting out of a condition imposed, allegedly to protect the health and welfare of the community, with no apparent repercussions. While one cannot legislate personal integrity or consideration for fellow human beings, there should be available certain controls over behavior that protect the local citizenry.

The issues currently in my thoughts concern the development known as Ellsworth Village. The Planning Board imposed certain conditions on the developer, including:

"3.2.1 Construction and contractor vehicle access to the Site shall be restricted to the emergency access road shown on the Plan. Construction and contractor vehicle access via Brabrook Road shall be prohibited, except for work actually performed on Brabrook, Flagg and Pope Roads as approved hereunder and except for extra large vehicles that cannot safely negotiate access from Great Road."

Construction vehicles have on more than one occasion accessed the site via Brabrook Road. Construction vehicles have been parked on Brabrook Road and Flagg Road in such a way as to render passage difficult or unsafe for residents.

"3.2.5 The Applicant shall keep residents on Brabrook and Flagg Roads informed of the construction schedule for work in these streets, and of any changes that may occur."

Residents have not been notified of grinding or excavation work recently performed. The blaster's representative, when asked by a mother of small children how many days notice she would have so she could plan to be away from home, was told "air horns will sound before the blasting."

"3.2.19. If perchlorate compounds will be used in the blasting process, the Applicant shall offer all immediate abutters of the Site, and, in the event that blasting is required on Brabrook, Flagg and Pope Roads, all residents on Brabrook and Flagg Roads and residents abutting the blasting location on Pope Road, a pre-blasting screening of

their domestic well water for ammonium perchlorate and other perchlorate compounds. Prior to conducting the blasting, the Applicant shall pay each such abutter or resident who agreed to a pre-blasting test, the cost of a post-blasting test which they may conduct at the time of their choosing. The post-blasting payment is waived for any abutter who ties into the new installed water main.

“3.2.20 If perchlorate compounds will be used for blasting work in Brabrook, Flagg, and Pope Roads, the insurance requirements in the “Specifications for Regulating Construction within Public Ways” shall be expanded to indemnify the Town for a period of not less than 10 years against claims for injury, death, or property damage due to any perchlorate contamination of domestic water supply wells that may result from the blasting activity.”

Richard Groll, the geologist who is conducting the pre-blast survey, has received written and verbal requests for pre-blasting perchlorate testing of domestic wells by more than one abutter. Mr. Groll stated to me that all groundwater in Massachusetts is contaminated with perchlorate compounds due to overhead airplane traffic, and pointed to a jet flying overhead at the time of our conversation. He stated that there would be no testing of wells at all, including static water level and flow rate, but offered to look at piping. Mr. Groll also suggested private use of a laboratory not certified to do perchlorate testing should residents wish to perform their own testing.

The blaster’s representative (not Mr. Groll) has stated that they will not use perchlorate in this application. A subsequent conversation I had with Rosemary Knox, the contact individual at MADEP BWSC, informed me that not only is Mr. Groll’s airplane-source statement inaccurate, but that blasting compounds may contain perchlorates even when they are not so labeled, and blasting contractors and the DEP have been experiencing difficulty with getting accurate compound contents from manufacturers. With this information in hand, the abutters contacted a state-certified lab and will be doing pre- and post-blasting tests on their own, with the assumption that, should perchlorate be found in the post-blasting test round, they will be reimbursed by the developer. (This is where the issue of “conditions” and “legal teeth” becomes relevant.)

The cost of perchlorate testing is \$127.50/sample. Each household electing to do this testing will incur a cost of \$155. Perchlorate is most harmful to children under 12 and individuals with hypothyroid conditions.<sup>1</sup> There are approximately a dozen children and one adult meeting these criteria in the Flagg-Brabrook neighborhood. Should the private wells on Flagg Road become contaminated with perchlorate, the option to hook into a Water District pipe is not available, and domestic treatment systems, costing in excess of \$1,000, will need to be installed to protect the health of the children.

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<sup>1</sup> <http://www.mass.gov/dep/bwsc/files/blasting.htm> See entire document, attached.

I thought it was worthwhile to make the Board aware of these issues, as the residents of this area (I have been somewhat tangential to the process because of my activity on the EAVPC and a possible perception of conflict of interest), having gone through a painful series of hearings and meetings with the Planning Board, Conservation Commissioner, and developer, have become increasingly discouraged by the lack of protection being provided by municipal government. Citizen cynicism and anger is an unfortunate result. Perhaps the Board of Selectmen could encourage/enable permits with conditions that in fact do protect pre-existing neighborhoods and the environment by providing for penalties for noncompliance. If action needs to be taken on a Town Meeting level with enactment of by-laws to ensure this protection, I highly recommend you consider doing so.

Sincerely,

Carol Holley

# Potential Environmental Contamination From the Use of Perchlorate-Containing Explosive Products

## Memorandum

To: Blasting Contractors and Interested Parties

From: Dick Chalpin, Acting Assistant Commissioner, Bureau of Waste Site Cleanup  
Massachusetts Department of Environmental Protection

Subject: Potential Environmental Contamination From the Use of Perchlorate-Containing Explosive Products

Date: March 1, 2005

## Introduction

In recent months, the Massachusetts Department of Environmental Protection (MADEP) has detected perchlorate in a few drinking water supplies in Massachusetts, including three public water supply wells where nearby blasting operations appear to be the source of the perchlorate contamination. The purpose of this memorandum is to provide guidance on perchlorate and prevent contamination of drinking water supplies.

## Background

Perchlorate is a chemical compound comprised of 1-chlorine and 4-oxygen atoms. The wide-scale production of ammonium perchlorate for use as a solid rocket propellant has led to the use of perchlorate compounds in a number of common products, including fireworks, airbag inflators, some paints and enamels, industrial chemicals, and explosives. Perchlorates are highly water soluble, and can travel significant distances in groundwater. Perchlorate can affect the function of the thyroid gland, which regulates the body's metabolism. Pregnant women and their fetuses, infants, children under the age of 12, and people with hypothyroidism are most susceptible to its potential effects. MADEP has in effect a health advisory of 1 µg/L (1 part per billion) in drinking water for these sensitive populations, and is in the process of adopting clean-up and drinking water standards for perchlorate.

In response to detections of perchlorate in water supply wells in Massachusetts, MADEP is investigating surrounding sites and activities that may have caused or contributed to contamination. Blasting operations employing perchlorate-

containing explosives have been identified in at least three locations as the likely source of drinking water contamination.

### **Blasting Agents and Explosives**

Perchlorates are present in a relatively small percentage of some blasting agents and explosives; primarily water gel and emulsion formulations. These products are used in difficult blasting applications, and contain sodium perchlorate, ammonium perchlorate, and/or potassium perchlorate as a sensitizing agent. Perchlorate-containing explosives typically have a high density and high explosive energy, making them suitable in wet/hard/dense rock blasting applications, or in general blasting applications to expand drilling patterns or to address excessive rock burdens. Additional situations where perchlorate-containing products are sometimes used include tight underground cuts, tight trenching applications, deep wet trenches, deep wet boreholes, and locations with high pre-compression conditions. The content of perchlorate in these products is variable, depending on the manufacturer, but can be 20% to 30% or more by weight.

### **Recommendations**

Although the environmental impacts from the use of perchlorate-containing blasting agents and explosives have not been fully defined, MADEP believes it is prudent for contractors to take the following reasonable steps now to minimize potential problems in this regard:

1. **Determine the perchlorate content of blasting agents and explosives to be used** . This may require that you make inquiries with your suppliers and/or manufacturers.
2. **To the extent practical, avoid the use of perchlorate-containing explosive products when surface or groundwater can be affected with particular attention:**
  - o Within and adjacent to the recharge areas of public drinking water supply wells (i.e., "Zone II" and "Interim Wellhead Protection" areas), and within and adjacent to the sensitive watershed areas of public drinking water supply reservoirs (i.e., "Zone B" areas). Maps of these areas should be available from local officials, and can be viewed on-line at <http://www.mass.gov/mgis/>
3. When the use of perchlorate-containing products is necessary:
  - o **institute rigorous "housekeeping" practices**. Some sources suggest that explosive products that are properly detonated will result in the nearly complete destruction of perchlorates, and that loss of product via spills or debris are the primary cause of environmental pollution.
  - o **take reasonable steps to prevent and address misfires**. In cases where explosives or blasting agents are washed or removed

from a borehole following a misfire, reasonable efforts should be made to collect and properly manage or dispose of perchlorate-containing materials. *In all cases, the safety of workers and the general public is of paramount concern.*

Please contact Rose Knox at the MADEP Bureau of Waste Site Cleanup (BWSC) at 617-556-1026 or [Rosemary.Knox@state.ma.us](mailto:Rosemary.Knox@state.ma.us) if you would like additional information, or please refer to the following link on DEP's website: <http://Mass.Gov/dep/brp/dws/percinfo.htm>.